

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A device for coupling vessels comprising:
 - a single flow channel main trunk having first and second ends;
 - first and second stent-anchors disposed completely within and covered by the main trunk, the first and second stent-anchors securing the first and second ends of the main trunk within a vessel;
 - a graft extension configured as part of the main trunk and extending from and being in fluid communication with the main trunk, the graft extension and the main trunk being formed as a continuous, one-piece, unitary structure, the single flow channel main trunk having a first diameter above the graft extension and a second diameter below the graft extension, the first and second diameters being equal;
 - a bypass graft overlapping the graft extension creating an overlap region and being in fluid communication with the graft extension vessel, the outside diameter of the graft extension being substantially equal to the inside diameter of the bypass graft; and
 - an internal anchor and an external anchor, the internal anchor being positioned within the graft extension configured to exert a chronic outwardly directed outward force and the external anchor being positioned outside of the bypass graft and configured to exert a chronic inwardly directed force, the internal anchor and the external anchor cooperating to seal the graft extension and the bypass vessel, both

the internal anchor and the external anchor being positioned concentrically in the overlap region to create a fluid tight seal between the graft extension and the bypass graft.

2. (Previously Presented) The device of claim 1 wherein said bypass graft vessel comprises an artificial graft or a donor vessel.

3. (Previously Presented) The device of claim 2 wherein said bypass graft vessel extends over said graft extension and wherein said internal anchor is disposed in said graft extension in an area at least partially overlapped by said bypass vessel.

4. (Previously Presented) The device of claim 3, wherein said external anchor is integral with said bypass graft vessel in an area which at least partially overlaps said bypass graft vessel.

5. (Withdrawn) The device of claim 2 wherein said graft extension extends over said bypass vessel and wherein said internal anchor is disposed in said bypass vessel in an area at least partially overlapped by said graft extension.

6. (Withdrawn) The device of claim 5 wherein said external anchor is integral with said graft extension in an area which at least partially overlaps said bypass vessel.

7. (Cancelled)

8. (Previously Presented) The device of claim 1 wherein the first and second stent-anchors exert an outward force to seal the main trunk in a main vessel.

9. (Previously Presented) The device of claim 8 wherein the first and/or second stent-anchors comprise a plastically deformable material.

10. (Withdrawn) A device for coupling vessels comprising:

a main vessel having an end;

a bypass vessel having an end;

a coupling graft disposed within said main vessel end and said bypass vessel end;

a main vessel internal stent-anchor configured to seal said main vessel with said coupling graft;

a bypass vessel internal stent-anchor configured to seal said bypass vessel with said coupling graft; whereby said main vessel and said bypass vessel are held in fluid communication via said coupling graft.

11. (Withdrawn) The device of claim 10, wherein said bypass vessel comprises a bypass graft or a donor vessel.

12. (Withdrawn) The device of claim 11, further comprising an external anchor for sealing said main vessel end and said bypass vessel end around said coupling graft.

13. (Withdrawn) The device of claim 12 wherein said main vessel internal stent-anchor and said bypass vessel internal stent-anchor exude an outward force to seal said coupling graft to said vessels.

14. (Withdrawn) The device of claim 13 wherein said stent-anchors comprise a plastically deformable material.

15. (Withdrawn) The device of claim 14 wherein said stent-anchors are ratchetable to increase a diameter of said stent-anchors.

16. (Withdrawn) The device of claim 15 wherein said stent-anchors are ratchetable by balloon expansion.

17. (Cancelled)

18. (Withdrawn) A method of performing end-to-side anastomosis comprising the steps of:

delivering a first guide wire to a junction site in a main vessel;
puncturing said main vessel at said junction site;

delivering a graft coupling device having a main trunk and a graft extension having an external anchor to said junction site via said first guide wire;

positioning a second guide wire to exit said graft extension of said graft coupling device at said puncture site;

sealing said main trunk to said main vessel with interior anchors disposed on opposite ends of said puncture site;

advancing a balloon along said second guide wire to a location corresponding to said external anchor;

balloon expanding said external anchor to a diameter sufficient for accepting a bypass graft;

navigating a bypass graft to said junction site and into said graft extension;

advancing an internal anchor along said second guide wire; and

deploying said internal anchor, thereby sealing said extension graft and said bypass graft.

19. (Withdrawn) A method of performing end-to-end anastomosis comprising the steps of:

positioning a first vessel end and a second vessel end over a coupling graft;

and

expanding an anchor in each of said ends for sealing said vessels with said coupling graft.